



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,537	04/18/2000	Kazuki Suzawa	P107424-00003	1899

7590 06/02/2004

RADER, FISHMAN & GRAUER, PLLC  
1233 20TH STREET, N.W.  
SUITE 501  
WASHINGTON, DC 20036-5339

EXAMINER	
FERGUSON, LAWRENCE D	
ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/551,537	ARIOKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lawrence D Ferguson	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 May 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 3 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

***DETAILED ACTION***

***Response to Amendment***

1. This action is in response to the Appeal Brief mailed May 07, 2004.

Claims 2 and 4-5 are cancelled and claims 1 and 3 are amended rendering claims 1 and 3 pending.

***Claim Rejections – 35 USC § 103(a)***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al. (U.S. 5,952,073) in view of Cunningham et al (U.S. 5,547,728).

Hurditch discloses a recordable medium comprising a protective layer, a reflective layer in proximity to the protective layer, a recording layer with a dye composition in proximity to the reflective layer and a transparent substrate on which the recording layer is formed (column 7, lines 10-16) where the recordable medium comprises a dye layer (column 7, line 64). Hurditch discloses the recording layer is formed by dissolving the dye mixture in a coating solvent at 2-10% by weight of the total components in the solution (column 10, lines 26-29) and typical organic solvents for use with the dye mixtures comprising diacetone alcohol (column 10, lines 44-45) and spin

Art Unit: 1774

coating (column 10, lines 48-49). The reference discloses the dye layer may be optionally dried (column 11, line 8) meaning the dye layer does not necessarily have to undergo a drying treatment. Hurditch does not explicitly disclose the organic dye layer in an amount of 2 to 15% by weight, however the reference does disclose an amount of 2 to 10% by weight (column 10, lines 26-29). Even though Hurditch does not disclose the solvent in an amount up to 15%, the solvent range is optimizable because it affects the reflecting layer of the recording medium. It would have been obvious to one of ordinary skill in the art to optimize the components because discovering an optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233 and also see *In re Boesch* 205 USPQ 215. Hurditch does not disclose the rotating speed for the spin coating. It would have been obvious to one of ordinary skill in the art to find the optimum rotating speed in order to provide optimal working conditions. Hurditch also does not disclose the organic solvent as 2,2,3,3-tetrafluoro-1-propanol.

Cunningham teaches an optical recording element having a transparent substrate, a recording layer and a light reflecting layer (abstract) and a protective layer over the reflective layer (column 10, line 65). Cunningham teaches the use of coating solvents such as 2,2,3,3-tetrafluoro-propanol. Hurditch and Cunningham are analogous art because they are from the same field of recording medium. It would have been obvious to combine the organic solvent, 2,2,3,3-tetrafluoro-propanol, as a solvent for the dye layer of Hurditch because Cunningham teaches that solvents such as 2,2,3,3-tetrafluoro-propanol is selected for its minimal effect on the substrate.

***Response to Arguments***

4. Applicant's arguments of rejection made under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al. (U.S. 5,952,073) in view of Cunningham et al (U.S. 5,547,728) has been considered but is unpersuasive. Applicant argues because the weight percentage of concentration in Hurditch is for the total solids component it does not meet the limitation of instant claims 1 and 3. In instant claims 1 and 3 Applicant claims an organic solvent in an amount of 2 to 15% by weight based on an organic dye. Hurditch discloses a dye mixture with additional stabilizer in a solvent concentration in the range of 2-10% by weight, where the nickel stabilizer can be about 1% by weight. Regardless of if the dye solvent amount by weight is based on the organic dye or on the total solid components in the solution, the solvent has a range of 2 to 10% of organic dye, which meets the claimed limitation of the organic dye layer in an amount of 2 to 15% by weight.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lawrence D. Ferguson  
Examiner  
Art Unit 1774



ELIZABETH MULVANEY  
PRIMARY EXAMINER